



100 GROVE ST. | WORCESTER, MA 01605

January 18, 2022

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**Subject: CB Distribution, 244 Worcester Street (Route 122)  
Site Plan, Wetlands Regulations, and Stormwater Regulations Review #2**

Dear Chris and Leah:

We received the following documents on December 28, 2022:

- Correspondence from Garofalo & Associates, Inc. to Graves Engineering, Inc. dated December 22, 2021 RE: 244 Worcester Street – Site Plan, Wetland Regulations, and Stormwater Regulations Review, Response to Comments.
- Plans entitled Site Plans for CB Distribution, Grafton, MA dated June 2021 and last revised December 17, 2021, prepared by Garofalo & Associates, Inc. for Churchill & Banks Companies, LLC. (43 sheets)
- Bound document entitled Project Narrative and Stormwater Management Report for CB Distribution, 244 Worcester Street, Grafton, Massachusetts 01536, Assessor's Plat 35, Lot 1 dated June 9, 2021 and revised December 17, 2021, prepared by Garofalo & Associates, Inc. for Churchill & Banks, LLC.
- Bound document entitled Stormwater Management System Operation and Maintenance Plan for CB Distribution, Assessor's Plat 35, Lot 1, 244 Worcester Street, Grafton, Massachusetts dated June 10, 2021 and last revised December 17, 2021, prepared by Garofalo & Associates, Inc. for Churchill & Banks, LLC.

We also received the following document on January 18, 2022 via e-mail:

- Sheet CU-1.1 of plans entitled Site Plans for CB Distribution, Grafton, MA dated June 2021 and last revised January 18, 2022, prepared by Garofalo & Associates, Inc. for Churchill & Banks Companies, LLC. (1 sheet)

Graves Engineering, Inc. (GEI) has been requested to review and comment on the plans' and supporting documents' conformance with applicable "Grafton Zoning By-Law" amended through June 20, 2020; Massachusetts Department of Environmental Protection (MassDEP) Stormwater Handbook and standard engineering practices on behalf of the Planning Board. GEI has also been requested to review and comment on the documents' conformance with applicable Grafton "Regulations Governing Stormwater Management" dated May 28, 2013 and "Regulations for the Administration of the Grafton Wetlands Protection Bylaw" dated April 19, 1988 and last revised May 2017 on behalf of the Conservation Commission. As part of our initial review, GEI visited the proposed site entrances on October 16, 2021.

This letter is a follow-up to our previous review letter dated December 9, 2021. For clarity, comments from our previous letter are *italicized* and our comments to the design engineer's responses are depicted in **bold**.

**Our comments follow:**

#### **Zoning By-Law**

1. *The plans need to identify the ownership of all abutting land within two hundred feet project's property lines. (§1.3.3.3.d.11)*  
**Acknowledged. Sheet G-2.1 was revised to include the ownership of all abutting land within two hundred feet of the projects property lines.**
2. *The plans need to include the lot coverage calculations showing percentage of buildings, pavement, and open space/landscaped areas. (§1.3.3.3.d.15)*  
**Acknowledged. Lot coverage calculations have been added to Sheet G-2.3.**
3. *The plans need to include an estimate of the volume of earth material to be removed or filled on the property. (§1.3.3.3.d.17)*  
**Acknowledged. An earthwork volume estimate table was added to Sheet CG-1.1.**

#### **Hydrology & MassDEP Stormwater Management**

4. *GEI reviewed the hydrology computations and found them to be in order provided that the following comment is addressed.*  
**GEI reviewed the revised hydrology computations and found them to be in order.**
5. *On Sheet CU-1.1, the size of the outlet pipe for the Retention Basin BMP-1B needs to be revised to be consistent with the hydrology computations and with the "Control Structure (CS-1)" construction detail on Sheet DT-1.5.*  
**Acknowledged. The size of the outlet pipe listed on Sheet CU-1.1 is consistent with the HydroCAD computations and the detail provided on Sheet DT-1.5.**
6. *Compliance with the MassDEP Stormwater Handbook and Standards is reasonable except as noted in the following comment.*  
**Compliance with the MassDEP Stormwater Handbook and Standards is reasonable.**
7. *On Sheet CU-1.1, catch basins CB3 and CB4 need to be configured in a catch basin to manhole configuration instead of a catch basin to catch basin configuration.*  
**Acknowledged. Per Sheet CU-1.1 last revised January 18, 2022, a drain manhole (DMH-3B) was added, and its configuration is in order.**

#### **Town of Grafton Stormwater Management Regulations**

8. *Pipe sizing and velocity calculations need to be included in the Stormwater Management Report. (§6.B.3.a)*  
**Acknowledged. Pipe sizing and velocity calculations have been submitted, GEI has no issues with these calculations.**

9. *The Operation and Maintenance Plan needs to include an updated BMP Location Map (Appendix A) as it currently depicts a superseded layout. In addition, the map needs to depict the location of all drainage easements. (§7.B.3.b)*  
**Acknowledged. The Operation and Maintenance Plan has been revised. The provided BMP location map (Appendix A) has been updated to reflect the current layout. Additionally, the drainage easements have been shown on the map.**
10. *Once the information becomes available, the Operation and Maintenance Plan will need to be updated to include the names, addresses, and contact information of the person(s) responsible for the site operation and maintenance. (§7.B.3.d)*  
**No further comment necessary.**

#### **Regulations for the Administration of the Grafton Wetlands Protection Bylaw**

11. *GEI has no issues relative to compliance with Wetland Protection Bylaw except for the following comment.*  
**GEI has no issues relative to compliance with Wetland Protection Bylaw.**
12. *A site-specific phasing plan needs to be provided. (§V.B.5.f)*  
**Acknowledged. A Construction Phasing Plan has been included in this submittal on Sheet C-1.1. GEI has no issue with the proposed phasing.**

#### **General Engineering Comments**

13. *The plan sheet list on the title sheet indicates C-1.1 Construction Phasing Plan as part of the plan set. However, it was omitted from the set provided to GEI.*  
**Acknowledged. Plan sheet C-1.1 (Construction Phasing Plan) has been included with this submittal.**
14. *The north arrow utilized in the plan set inadvertently refers to the Rhode Island state plane.*  
**Acknowledged. The north arrow has been revised to reference the 1929 state highway layout plan.**
15. *On Sheets CL-1.1 and CL-1.2, the leader notes indicate that the proposed 6 ft. wide sidewalk is to be constructed of bituminous concrete, however the corresponding hatch pattern indicates cement concrete.*  
**Acknowledged. The leader notes have been revised to indicate the sidewalk to be concrete (consistent with the hatching).**
16. *On Sheet CU-1.2, the southern inlet invert elevation for DMH11 (364.90) needs to be lower than the up-gradient pipe originating at WQS-9 (364.62).*  
**Acknowledged. The southern inlet invert elevation (364.08) has been revised to be lower than the upgradient pipe (364.62).**
17. *On Sheet DT-1.6, the pump model number for the "Eone Detail Sheet" construction detail does not concur with label for the guard house sewer pump station on Sheet CU-1.2.*  
**Acknowledged. Sheet CU-1.2 has been revised. The pump model (DH071) for the guard house sewer pump station is consistent between Sheet DT-1.6 and CU-1.2.**
18. *Sheets L04 and L06 show proposed trees planted on top of the drainage pipes. GEI recommends adjusting the locations of the respective trees to avoid pipe damage in the future.*

**Acknowledged. The drainage pipe on the south side of the proposed building has been moved further south to avoid conflicts.**

19. *A construction detail should be included for trench drains that are proposed in the northeastern parking area on Sheet CG-1.1.*

**Acknowledged. A construction detail has been provided for the trench drains on Sheet DT-1.4.**


**General Comments**

20. GEI understands that the proposed water and sewer utilities will be reviewed by the respective utility providers.

**No further comment necessary.**

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,  
**Graves Engineering, Inc.**



Jeffrey M. Walsh, P.E.  
Principal

cc: Samuel S. Hemenway, P.E.; Garofalo & Associates, Inc.